Appl. No. 09/737,400   APP 1279
Amdt. Dated May 5, 2004
Reply to Office Action of November 5, 2003

Listing of Claims:

1. (currently amended) A method for reserving resources in a wireless network to accommodate the future resource demands of call traffic, said method comprising the steps of:

monitoring a resource to obtain a resource value;

~~estimating~~ predicting radio dependent and radio independent layer resources needed for future calls ~~radio dependent and radio independent layers~~ based on said monitored resource value; and

reserving said needed resources at the radio dependent and radio independent layers based on said ~~estimate~~ prediction.

2. (original) The method of claim 1 wherein said monitoring step further includes the step of monitoring handoff call arrivals, resource requirement, and resource usage.

3. (currently amended) The method of claim 2 further comprising the step of updating the rate at which said ~~estimating~~ predicting is done if the difference in resource usage is greater than or equal to a pre-determined value.

4. (currently amended) The method of claim 3 wherein said step of ~~estimating~~ predicting further includes the step of modeling the resources needed as a Wiener process.

5. (original) The method in accordance with claim 3 said calls are handoff calls.

6. (original) The method in accordance with claim 3 wherein said calls are new calls originating within a cell.

7. (original) The method in accordance with claim 3 wherein said calls are handoff calls and new calls originating within a cell

8. (currently amended) A method for reserving resources in a mobile wireless internet protocol network to accommodate future resource demands of users, said method comprising the steps at a base station of:

monitoring call arrivals and resource requirements;

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responsive to said monitoring, ~~estimating~~ predicting the radio dependent and radio

independent resources required; and

instructing radio independent and radio dependent layers to reserve the ~~estimated~~

predicted resources for future calls.

9. (currently amended) The method in accordance with claim 8 wherein said ~~estimating~~

predicting step resides at a radio-independent layer of the internet protocol.

10. (original) The method in accordance with claim 8 further comprising increasing the

rate of said monitoring step if the difference in resource usage is greater than or equal to a

threshold value.

11. (currently amended) The method in accordance with claim 10 wherein said

~~estimating~~ predicting step comprises Wiener process-based stochastic models.

12. (currently amended) The method in accordance with claim 11 wherein said

~~estimating~~ predicting step resides at a radio-independent layer of the internet protocol.

13. (original) The method of claim 12 wherein said calls are handoff calls.

14. (original) The method in accordance with claim 12 wherein said calls are new calls

originating within a cell.

15. (original) The method in accordance with claim 12 wherein said calls are handoff

calls and new calls originating within a cell.

16. (original) The method in accordance with claim 8 wherein said step of monitoring

monitors instantaneous values of handoff call arrivals and resource requirements.

17. (original) The method in accordance with claim 8 wherein said instructing step

causes reservation of both radio resources and internet protocol layer resources.

18. (currently amended) The method in accordance with claim 17 wherein said

~~estimating~~ predicting step is based on a stochastic model.